

The Costs of Child Abuse vs. Child Abuse Prevention: Alabama's Experience



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Center for Business and Economic Research
THE UNIVERSITY OF ALABAMA

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For
The Alabama Children's Trust Fund

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I. Introduction

Child abuse is defined by the Federal Child Abuse Prevention and Treatment Act as any recent act or failure to act on the part of a parent or caretaker that results in death, serious physical or emotional harm, sexual abuse, or exploitation; or an act or failure to act that presents an imminent risk of serious harm. In 2001 over one million children were victims of child abuse and neglect here in the United States. In Alabama in the year 2004 approximately 10,110 children were victims of child abuse and neglect. Child abuse can and does cause a strain on the state's social, health, and judicial services. The purpose of this study is to document the costs to the taxpayers of Alabama.

To evaluate the costs of child abuse on the Alabama economy one must look at both the direct costs of intervention (those costs associated with the immediate needs of abused or neglected children) and indirect costs (those costs associated with the long-term and/or secondary effects of child abuse and neglect)⁽⁹⁾. The act of abuse or neglect not only affects the child's present status but continues to affect his way of living throughout his course of life. Child abuse and neglect causes severe damage to the child as an individual and to society as a whole. This study's goal is to estimate the monetary cost of child abuse in the state of Alabama through the use of secondary data.

II. Review of Literature

This project's resources were limited to data already publicly available. This study did not engage in surveys or any other primary data generation. Large, well-funded research studies collecting rigorous primary data on this subject are rare. The pertinent literature reviewed repeatedly urges more research. Nevertheless, secondary analysis of administrative records in the public domain provides excellent

documentation about the level of child abuse and programs to ameliorate its effects. All literature reviewed pertains to child abuse and neglect outcomes, causes, prevention, costs, and quality of life.

Prior research shows a correlation between poverty and poor health and child abuse and neglect. There is a higher percentage of child abuse and neglect cases among families living below the poverty level. The Children's Defense Fund published *The State of America's Children in 2005*. This research project found that for the first time in our nation's history, the projected life expectancy for children may be less than that of their parents. More than nine million children in the United States remain uninsured and child health program budgets are threatened by cutbacks. The lack of health programs for children contributes to more childhood illnesses. Ill children tend to experience child abuse and neglect more than healthy children nationally.

Preventable infant mortality and low birth weight babies are a form of child abuse. In 2002 infant mortality rates rose from 6.8 per 1,000 births to 7.0 per 1000 births; this was the first time in over 40 years the rate had risen. This statistic means the United States now ranks 25th in the world among industrialized nations in preventing infant mortality. In addition to increased infant mortality, the percentage of children born at low birth weight has increased. Prenatal care is available for pregnant mothers, but mothers who do not take advantage of it are not changing their harmful behaviors that cause low weight births. Prenatal care for pregnant women is important in reducing the incidence of infant mortality and low birth weight; it is consequently a critical component in preventing the abuse and neglect that works against the healthy development of infants and children.

Each year VOICES for Alabama Children produces an *Alabama Kids Count Data Book*. This study used the 2006 data book to document Alabama's county demographics and indicators of health, education, safety, and security. Specifically,

the *Data Book* provided the figures for children indicated as victims of child abuse and neglect and low weight births.

The Alabama Child Death Review System (ACDRS) is an office within the Alabama Department of Public Health, Bureau of Family Health Services (Alabama's Title V Agency). ACDRS reports statistics on child mortality; identifies deaths that may be the result of abuse, neglect or other preventable causes; and from that information develops and implements measures to aid in reducing the risk and incidence of future unexpected/unexplained child injuries and deaths in Alabama. This study used the most recently available ACDRS report, *A Piece of the Solution; Saving Alabama's Kids... Our Most Precious Resource*. This agency's 2003 publication reports that in that year there were 823 children under the age of 18 who died in Alabama. Of those 823 deaths, 26 were known to be caused by child abuse and neglect and could have been prevented. The 2003 data are the most recent available at this writing.

The U.S. Department of Health and Human Services' Agency for Healthcare Research and Quality maintains the Health Care and Utilization Project (HCUP) for the nation, an online system for access to health statistics and information on hospital stays. One of the services of HCUP is a series of Fact Books. For purposes of this study we were able to use two of those Fact Books—*Hospitalization in the United States 2002* and *Care of Children and Adolescents in U.S. Hospitals*. The *Hospitalization Fact Book* gave information pertaining to the costs of hospital care, primarily for low weight births and care thereafter. The *Hospitalization Fact Book* states that 12 percent of hospital stays are related to pregnancy and childbirth and 11 percent are related to newborn infant births. Among the most expensive kinds of hospitalization in the country are labor and delivery and the care of low birth weight babies.

Care of Children and Adolescents in U.S. Hospitals reported data on chronic illnesses occurring in adolescents. As explained later in this study, 30 percent of abused or neglected children suffer from a chronic illness. Of the 38 million hospital

stays in 2000, approximately 18 percent were for children and adolescents 17 years and younger. The *Fact Book* states that respiratory conditions are the most common reason for non-neonatal, non-maternal hospitalizations among children. Pneumonia, asthma, and acute bronchitis account for one in five hospitalizations for pediatric illness. Asthma and pneumonia remain among the top 10 reasons for hospitalizations among all pediatric age groups, with asthma being the most common reason for hospitalization among three- to five-year-olds and six- to twelve-year-olds. Whereas not all respiratory conditions in children are due to abuse and neglect, there would be considerable savings in health care costs and child suffering if the cases due to neglect and abuse would be prevented.

Abused children not suffering chronic illnesses sometimes suffer from much worse circumstances. Prevent Child Abuse America published an article by Kelly Myles, *Disabilities Caused by Child Maltreatment: Incidence Prevalence and Financial Data*. The article summarizes publications by the U.S. Department of Health and Human Services (HHS) as well as articles from Sobsey, Hopper, and Ammerman. Myles examined child maltreatment that results in child death and near-fatal child maltreatment. HHS found that severe maltreatment cases leave 18,000 children permanently disabled each year, tens of thousands of victims overwhelmed by lifelong psychological trauma, thousands of traumatized siblings and family members, and thousands of near-death survivors, who, as adults, continue to bear physical and psychological scars. Researchers estimate that violence is a significant causal factor in 10 to 25 percent of all disabilities in children. In Sobsey's study of 84 infants with head injuries, 95 percent of those infants whose injuries were categorized as serious and likely to cause disability or death were a result of abuse. It is important to note that in addition to the well-being of children, preventing abuse injuries to children results in considerable savings in taxpayer-subsidized hospitalization costs.

A National Institute of Justice Research report by Miller, Cohen and Wiersema documented the results of a two-year multidisciplinary research effort to estimate the cost and consequences of personal crime for Americans. *Victim Costs and Consequences:*

A New Look estimates that personal crime costs 105 billion annually in medical expenses, lost earnings, and public program costs related to victim assistance. These tangible losses do not account for the full impact of crime on victims, because the items quantified above ignore pain, suffering, and lost quality of life. When the monetary value of pain, suffering, and reduced quality of life are included, the cost of crime to victims increases to an estimated \$450 billion annually. As much as 10 to 20 percent of mental health care expenditures in the United States may be attributable to crime, primarily for victims treated as a result of their victimization. About half of these expenditures are for child abuse victims who are receiving treatment for abuse frequently incurred years earlier.

Child Abuse, Delinquency and Violent Criminality by Dorothy Lewis, et al. notes that most physically abused children do not become violent delinquents (although that assumption may rest on a lack of scholarly research on the subject). However, a high proportion of delinquents, particularly violent delinquents, have been severely abused. Thus, there is a clear association between childhood abuse and subsequent antisocial, aggressive acts.

The Cost of Protecting Vulnerable Children V: Understanding State Variation in Child Welfare Financing published by the Urban Institute is a comprehensive report on the cost of welfare agencies for the nation. This report was used to determine the cost of Alabama's welfare agencies for fiscal year 2004. Child welfare agencies provide a safety net for abused and neglected children and children at risk of abuse and neglect.

Three documents were particularly important to this research project. Each document has to do explicitly with the cost of child abuse and neglect. The first document is Suzette Fromm's *Total Estimated Cost of Child Abuse and Neglect in the United States*, an early attempt to document the nationwide costs resulting from abuse and neglect. Fromm's work gives a sound definition of direct and indirect costs of child abuse and neglect as well as accurate formulas for calculating child abuse and neglect costs. The second document is Deborah Daro's book *Confronting Child Abuse:*

Research for Effective Program Design, primarily chapter 6, which discusses the cost of confronting child abuse. This chapter compares the specific fiscal ramifications of adopting nonintervention, treatment, and prevention approaches to child maltreatment. The third document is a research study from Michigan, *The Cost of Child Abuse vs. Child Abuse Prevention*, a statewide study done to calculate the cost of child abuse intervention in Michigan. All these studies pertain to the costs and potential costs of child abuse.

Using the material cited above, the current study identified the many causes and resulting effects of child abuse. Information on the associated costs is more difficult to find. Almost all sources on the costs of child abuse and neglect agree that more research should be done and that the area of child abuse and neglect should not go ignored. Working with the information outlined above, the following sections of this study will estimate the cost of child abuse in the state of Alabama.

III. Methodology

The following estimates of the cost of child abuse and neglect to the state of Alabama are based on publicly available secondary data. Working with state and national reports, this study was able to identify essential cost data for Alabama. Telephone interviews and emails were used to contact Alabama state agencies such as Human Resources, Alabama Department of Corrections, Alabama Department of Youth Services, the Alabama Sentencing Commission, and Medicaid. The University of Alabama's research library also provided previously published works on child abuse in Alabama and the nation. All sources are cited at the end of the report.

IV. Findings

There are two components to the costs of child abuse and neglect on the Alabama economy, direct and indirect.

Direct Costs. The direct cost of child abuse and neglect includes hospitalization bills, chronic health problems, mental health treatment, use of the

welfare system, investigations done by the law enforcement, and the judicial system's cost for prosecution. These are discussed below. Not every child who comes into contact with health, legal, judicial, and welfare systems in Alabama is a victim of child abuse. This study will make appropriate assumptions in this regard.

Hospitalization. For the purpose of this study, two reasons for child abuse hospitalization were considered. First is injuries sustained by abuse or neglect and second is caring for a low birth weight baby due to prenatal neglect. To find the cost of injuries sustained, data were collected from Medicaid from certain ICD-9 codes used to label injuries due to child abuse. Those codes are as followed:

- 99550: Child abuse unspecified
- 99551: Child emotional/psychological abuse
- 99552: Child neglect (nutritional)
- 99553: Child sexual abuse
- 99554: Child physical abuse
- 99555: Shaken infant syndrome
- 99559: Other child abuse and neglect

These codes detail costs both from injuries requiring hospitalization as well as those that are less severe and require only outpatient treatment. Medicaid estimated that over 360 Alabama cases of abuse and neglect, as defined by the ICD-9 codes above, were treated through their system in 2006, costing over \$180,000. *Alabama Kids Count 2006 Data Book* estimates that in 2005 there were 10,110 children in Alabama with indications of abuse or neglect.

The cost of care for a low weight birth due to prenatal neglect was estimated using statistics from the Alabama Department of Public Health. In the year 2004, the number of child (ages 1-14) deaths was 234 per and the number of infant (ages 0-1) deaths was 516. The number of low weight births was at 6,204 and 84 percent of women received first trimester prenatal care, which meant that 16 percent of pregnancies received late or no prenatal care. The above figure of 16 percent was cross

referenced with the Children's Defense Fund 2005 finding that 993 live low weight births were due to no prenatal care or late prenatal care. Statistics from the Health Care and Utilization Project 2004 estimated that it costs a hospital \$79,300 to care for each low weight birth; this figure includes the cost of newborn hospitalization, re-hospitalization within the first year, and other health care costs associated with low birth weight.

An important research effort in Michigan calculated the costs associated with high incidences of low birth weight babies to that state. What was found to be true in Michigan is also true in Alabama:

Yet there is a definite relationship between the adequacy of the mother's prenatal care and the health of her baby at birth. The high proportion of women who receive either no prenatal care or none until after the sixth month of pregnancy represents one of the most serious health problems facing the nation. Not only do the infants face a higher risk of death and disability, but the risk of maternal morbidity and disability, often from preventable causes, also increased substantially.

Caldwell, 2005

Chronic Health Problems. Suzette Fromm estimated that 30 percent of maltreated children will suffer from chronic medical problems throughout their lives. Fromm used asthma as a general chronic medical problem indicator because it is one of the largest chronic medical problems affecting children today. According to the Health Care and Utilization Project, it costs \$5,493 per child per year to treat asthma incidences. All figures were taken from Kelly Myles's paper "Disabilities Caused by Child Maltreatment: Incidence, Prevalence and Financial Data."

Mental Health Treatment. The National Institute of Justice reports that 25 to 50 percent of all child abuse victims will need some form of mental health treatment. The cost of mental health care for the typical child sexual abuse victim is estimated to be \$5,800 per child per year. There is not a separate cost estimate for mental health treatment of children suffering from other kinds of abuse. The source study was unable to give an estimated length of mental health care (how many years a child will

need mental health care) because of the obvious differences in treatment needed for each case (no two children are alike).

Reasonably assuming that not all child abuse victims will be as expensive to treat as those suffering from sexual abuse, the current study used the conservative lower percentage of 25 percent. National average cost estimates were used in the absence of data from the Alabama Department of Mental Health, the Alabama Department of Human Resources, the Alabama Department of Public Health, and Medicaid on the costs of psychological treatment incurred by child abuse or neglect victims in the state.

Child Welfare System. A study done by The Urban Institute in 2004 entitled *State Variation in Child Welfare Financing* calculated the State of Alabama's spending on child welfare. The report's executive summary stated that "child welfare agencies provide a safety net for abused and neglected children and children at risk for abuse and neglect." The authors reported they are confident their data give an accurate estimate of Alabama's spending on child welfare.

Law Enforcement. The National Institute of Justice estimates the cost per case per year of police services for each of the following interventions: Child Sexual Abuse (\$56); Physical Abuse (\$20); Emotional Abuse (\$20); and Child Neglect (\$2). The Centers for Disease Control, National Center for Injury Prevention and Control published a child abuse fact sheet on its website. We learn there that, from all confirmed cases of child abuse and neglect, 61 percent were neglected, 19 percent were physically abused, 10 percent were sexually abused, and five percent were emotionally abused. It was not possible to determine the category for the remaining five percent. These figures are used later in the paper to determine the cost of law enforcement for child abuse cases. These estimates would include any police force expenditures and also costs accrued when investigating child abuse or neglect.

Judicial System. The Dallas Texas Commission on Children and Youth determined that their cost per initiated court action for each case of child

maltreatment is \$1,372.34. This study assumes the Alabama expenditure is similar to Texas's. The Alabama Department of Human Resources estimates that approximately 16 percent of child abuse victims in Alabama have court action taken on their behalf.

Indirect Costs. Indirect costs of child abuse and neglect are those of special education, mental treatment for permanent psychiatric disorders, juvenile delinquency, lost productivity to society, and adult criminality.

Special Education Costs. Due to the lack of current data available on special education costs per child per year , * data from older sources had to be used. The Alabama Department of Education was unable to estimate a statewide per-child cost for special education due to the large cost differences from system to system within the state. Deborah Daro states that in 1988 the national average was \$655 per child per year for special education. This study was able to make a current estimate by adjusting the 1988 estimate to 2005 dollars. Daro also states that more than 22 percent, or about one-fourth, of abused children will receive some special education services for at least one year between kindergarten and twelfth grade. She reports

1. Approximately 30 percent of abused children have some type of language or cognitive impairment
2. Over 50 percent of abused children have socio-emotional problems
3. Approximately 14 percent of abused children exhibit self-mutilate or other self-destructive behavior
4. Over 50 percent of abused children have difficulty in school, including poor attendance and misconduct
5. Over 22 percent of abused children have a learning disorder

The estimate of 22 percent was independently confirmed by Myles (2001) and Fromm (2001).

* Telephone interview with Ms. Kathy Adams at Alabama Department of Education, Special Education Services

Mental Health and Health Care. These indirect costs are those for adult psychological treatments due to childhood abuse or neglect. Eighty percent of child abuse victims have at least one psychiatric disorder as adults. Due to the lack of Alabama-specific data, we are unable to make a hard analysis of the cost of such treatment for victims in Alabama.

Juvenile Delinquency. According to Dorothy Lewis, 20 percent of abused children will be convicted for a serious juvenile crime such as theft, auto theft, breaking and entering, burglary, or assault. The Alabama Department of Youth Services estimates that the average cost of housing a juvenile offender in a secure institution is \$132 per day and the average period of stay is from six months to one year. These figures account for only the housing of a juvenile offender and do not cover the costs of the courts or the costs of police services. Not all juvenile offenders are abused children, but these cost estimates will allow us to estimate the financial costs in the juvenile justice system that can reasonably be attributed to child abuse or neglect.

Lost Productivity to Society. This study acknowledged two kinds of monetary loss to society from child abuse. First is the loss of a lifetime of productivity when a child dies due to child abuse or neglect. Second is that an abused or neglected child grows up to be disproportionately affected by unemployment and underemployment. According to the U.S. Bureau of Economic Analysis, Alabama's average wage per job was \$35,732 in 2005. According to the Child Death Review 2003, there were 26 deaths in Alabama due to abuse or neglect. The lowest income tax rate for the state of Alabama is two percent, quoted from the Federal Tax Administrators website. The average length of participation in the labor force for Alabama is 41 years, according to Jim Henry at the Department of Internal Revenue. Using these figures, and assuming that the annual number of child deaths remains constant, we can estimate that the state loses \$724,000 per year in income taxes from deaths due to child abuse and neglect. Let us first discuss lost potential earnings for children who died as a result of abuse or neglect.

Although these figures represent the loss of tax revenue during a lifetime it can also be interpreted as the per year loss to the state if the rates of tax and infant mortality are fairly stable. That is, while the loss of taxes for a child who died this year will be spread out over the next six or seven decades, this year the state is deprived of tax collections from all children who died during the last six or seven decades.

Caldwell, 2005

Child abuse also reduces the lifetime productivity of its victims who do not die, whether that is because of physical disabilities from abuse or from the emotional trauma that follows later in life. Daro estimated that it is reasonable to assume that five percent of lifetime earnings would be affected.

No data were available to contradict the assumption that it would be a reasonable assumption that all victims of child abuse would be disproportionately affected by unemployment and underemployment and that five percent of earnings would be a modest estimate for all those affected by child abuse and neglect.

Adult Criminality. In Rolf Loeber's Handbook of Juvenile Delinquency we learn that 23.7 percent of juvenile offenders are later incarcerated as adults. Using the above data for juvenile offenders, that figure comes to about 480 individuals for the year 2006. The state of Alabama's cost per day to house an adult offender is \$26; the cost per year would be \$9,490. All data were received from the Alabama Sentencing Commission. The average length of stay for adults incarcerated is 3.5 years, according to the Alabama Department of Corrections October 2006 *Monthly Statement*. These figures would include only the cost of housing an adult and not include the cost of the courts or the cost of police services.

Calculation of Direct Costs:

(Explanatory notes appear at the end of the table.)

Hospitalization:

Cost of injuries sustained because of child abuse and neglect can be calculated both by inpatient hospital care and outpatient hospital care using certain DX codes ⁽¹⁾ defined as child abuse injuries. These codes were used to total data from Medicaid on the cost of injuries due to child abuse in 2005. Medicaid funds spent on child abuse injuries for the year 2005 for outpatient treatment as well as inpatient treatment totaled \$ 184,050. *

Low Birth Weight Births:

Low birth weight babies born due to prenatal neglect, according to the CDF 2005, are 16.3 percent of total low birth weight births ⁽²⁾. In 2004 in the state of Alabama there were 6,204 LBW births ⁽³⁾. The Health and Utilization Project 2004 estimates it costs \$79,300 per low birth weight birth** ⁽⁴⁾

Calculations:

$$6,204 \times .163 = 1,011$$

$$1,011 \times 79,300 = \$80,192,283$$

$$\$80,192,283 + \$184,050$$

$$\underline{\underline{\$80,376,333}}$$

Table continues on next page

Chronic Health Problems:

Myles estimated that 30 percent of maltreated children suffer chronic medical problems. According to *Alabama Kids Count Data Book*, there were 10,110 cases of child abuse and neglect in 2004 ⁽³⁾. This study used asthma as a proxy for all chronic illnesses ⁽⁵⁾. According to the Health and Utilization Project, hospitals spend an average of \$5,493 per child per year on treating asthma ⁽⁶⁾.

Calculations:

$$.30 \times 10,110 = 3,033$$

$$3,033 \times \$5,493 = \$16,660,269$$

\$16,660,269

Mental Health Care System:

The National Institute of Justice reports that 25-50 percent of all child abuse victims will need some form of mental health treatment. The cost of mental health care for the typical child sexual abuse victim is estimated to be \$5,800 ⁽⁷⁾. Using the smallest percentage of abuse victims to compensate for the difference in sexual abuse victims from other forms of child abuse we can estimate mental health system costs.

Calculations:

$$10,110 \text{ (3) } \times .25 = 2,527$$

$$2,527 \times 5,800 = \$14,659,500$$

\$14,659,500

Table continues on next page

Child Welfare System:

The Urban Institute published a paper in 2004 on State Variation in Child Welfare Financing that calculated that child welfare spending on children of abuse and neglect for the state of Alabama was \$278,097,807 *** (8).

\$278,097,807

Law Enforcement

The National Institute of Justice estimates the following costs per cast per year for police services for each of the following interventions: child sexual abuse (\$56); physical abuse (\$20); emotional abuse (\$20); and child educational neglect (\$2) (9). The CDC child maltreatment fact sheet states that from all confirmed cases of child abuse and neglect 61 percent experience neglect; 19 percent were physically abused; 10 percent were sexually abused; 5 percent were emotionally abused; and the remaining 5 percent was undetermined (10).

Calculations:

Child Sexual Abuse – $10,110 \times .10 = 1,011 \times \$56 =$
\$56,616

Physical Abuse – $10,110 \times .19 = 1,921 \times \$20 = \$38,420$

Emotional Abuse – $10,110 \times .05 = 506 \times \$20 = \$10,120$

Child Neglect – $10,110 \times .61 = 6,167 \times \$2 = \$12,334$

Total Cost: \$117,490
\$117,490

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Judicial System:

The Dallas Commission on Children and Youth determined the cost per initiated court action for each case of child maltreatment was \$1,372.34. Approximately 16 percent of child abuse victims have court action taken on their behalf (9).

Calculations:

$$10,110 \times .16 = 1,618$$

$$1,617.6 \times \$1,372.34 = \$2,220,446$$

\$2,220,446

Total Direct Costs:

\$392,131,895

Notes about Direct Costs

* It should be noted that the majority of facilities with patients who received IP care that is covered by Medicaid are not paid on a fee for service (FFS) basis. Charges are paid by using a pre-paid inpatient hospital program whereby the Partnership Hospital Program (PHP) is paid a capitation fee for inpatient care.

** These charges include newborn hospitalization, re-hospitalization within the first year, and other health care costs associated with low birth weight.

*** This figure includes expenditures on:

- All state fiscal year (SFY) 2004 expenditures for the programs, case management, administration and operation (including field and administrative staff expenses) of the state's child welfare services system, including all funds for services contracted out to another agency that meet the definition of child welfare below.

Exclude: capital costs, appropriated but unexpended funds, and recoupment of federal reimbursement from prior years.

1. All the following services that are administered by the child welfare agency: services for children and families to prevent abuse and neglect; family preservation services; child protective services (intake, family assessment, investigation, and case management); in-home services; out-of-home placements; and adoption services.

Exclude: domestic violence, juvenile justice, and all other services that the child welfare agency may provide that are not listed above.

2. Payments for all children in family foster care, kinship care, shelter care, group or institutional residential care, independent living, and other placement settings; expenses associated with both in-state and out-of-state placements; expenditures on support services for children in placement (e.g., respite or child care, therapy); and administrative expenses associated with placement (including training).

Exclude: adoption related expenses and expenditures associated with reunification services.

3. All expenditures associated with adoptive and subsidized guardianship placements including assistance payments, pre- and post-adoption services, support services, non-recurring adoption expenses, and administrative expenses associated with placement (including training).

4. The staff salaries and overhead, but not capital costs, for the following services: intake; investigation; development of case plans; case reviews; case management and supervision; preparation for and participation in judicial determinations; recruitment, licensing, and oversight of foster and adoptive homes and institutions; and other administrative expenses (e.g., budget staff) associated with child welfare services.

Exclude: administrative expenditures associated with out-of-home placements and adoptions as defined above.

5. All child welfare services not listed in out-of-home placement, adoption, or administrative services definitions above, including all prevention services, child protective services, family preservation services, reunification services, and in-home support services.

Exclude: other services that may meet the definition of child welfare services that are not administered or contracted out by the child welfare agency (e.g., home visiting programs administered through the state health agency or parenting education programs administered by the state TANF agency).

Calculation of Indirect Costs

Special Education Costs:

More than 22 percent, or nearly one fourth, of abused children have a learning disorder requiring special education. Total cost per child for learning disorders from Daro, 1988 was \$655 per year ⁽¹¹⁾.

Calculations:

$$2,224 \times \$655 (\text{raised by inflation})$$

$$\text{Inflation raise: } (\$655 / 55.957) \times 100 = \$1,170.50$$

$$224 \times \$1,170.50 = \$2,603,192$$

\$2,603,192

Juvenile Delinquency:

Twenty percent of abused children will be convicted for serious juvenile crimes ⁽¹²⁾. According to Allen Peaton, Deputy Director of Admissions for the Alabama Department of Youth Services, the average cost of housing a juvenile offender in a secure institution is \$132 per day and the average period of stay is from 6 months to 1 year (Allen Peaton, email, November 22, 2006).

Calculations:

$$10,110 \times .20 = 2,022$$

$$\$132 \times 365 \text{ days} = \$48,180 \text{ per year}$$

$$2,022 \times \$48,180 = \$97,419,960$$

\$97,419,960

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Lost Productivity to Society:**Mortality:**

According to the U.S. Bureau of Economic Analysis, Alabama's average 2005 average wage per job was \$33,965 ⁽¹³⁾. According to Williamson et al, the number of deaths caused by child abuse was 26 ⁽¹⁴⁾.

The lowest Alabama state income tax is 2 percent and highest is 5 percent, according to the Federal Tax Administrators (FTA) ⁽¹⁵⁾. The average length of participation in the labor force for Alabama is 41 years, according to Mr. Jim Henry of the Alabama Department of Industrial Relations, in a telephone interview, November 29, 2006.

Calculation:

$$\begin{aligned} \$33,965 \times 41 &= \$1,392,565 \\ \$1,392,565 \times .02 \text{ tax rate} &= \$27,851 \\ \$27,851.30 \times 26 \text{ people} &= \$724,134 \end{aligned}$$

Unemployment:

According to Daro, child abuse can reduce the lifetime productivity of its victims. With all other factors considered, it is reasonable to assume that five percent of lifetime earnings would be affected ⁽¹¹⁾.

Calculations:

$$\begin{aligned} \$29,136 \times 41 &= \$1,194,576 \\ \$1,194,576 \times .05 &= \$59,729 \\ \$59,729 \times .02 &= \$1,195 \\ \$1,195 \times 10,110 &= \$12,081,450 \\ \text{Total } \$724,134 + \$12,081,450 &= \underline{\underline{\$12,805,583}} \end{aligned}$$

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Adult Criminality:

23.7 percent of juvenile offenders are later incarcerated as adults ⁽¹⁶⁾. According to the Alabama Sentencing Commission, the cost per day to house an adult offender is \$26; the cost per year would be \$ 9,490 ^(Karan Singley, email, November 20, 2006). The average length of incarceration for an adult is 3.5 years ⁽¹⁷⁾.

Calculations:

$$2,022^{****} \times .237 = 480$$

$$\$26 \times 365 = \$9,490$$

$$9,490 \times 480 = \$4,555,200$$

$$\$4,555,200 \times 3.5 = \$15,943,200$$

\$15,943,200

Total Indirect Cost:

128,771,935

**** taken from the juvenile offenders estimate above

Total Costs of Child Abuse and Neglect to Alabama Taxpayers Every Year:

Direct Costs	\$392,131,895
Indirect Costs	<u>\$128,771,935</u>
Total	<u>\$520,800,290</u>

V. Discussion/Summary

The Children's Trust Fund (CTF) is the main provider in the state of Alabama for child abuse and neglect prevention services. In 2005 CTF expenditures were \$3,795,993. These expenditures include, but are not limited to, child abuse and neglect prevention grants for family support programs and Family Resource Centers and statewide child abuse and neglect prevention grants serving at-risk youth. All expenditures by the CTF are funds issued through grants, other trust funds, and private

donations. Prevention programs, in theory, can interdict the chain of child abuse. Different prevention programs are aimed at different points in the abuse cycle. The earliest intervention would be to prevent low birth weight babies.

As stated before, the leading cost in hospital bills is the birth of low weight babies. Informational programs that give nutritional advice, support, and monitor the progress of pregnant women in need are already available in some areas of the state, but these programs are unable to reach all the women in need. Such programs could contribute to fewer incidents of low weight births in the state and thus save significant dollars on hospitalization now paid at taxpayers' expense.

Other programs provide parenting education on problem areas such as tantrums, difficulty in school, sickness, and other complex areas of parenting. Programs that give parents the training to handle situations without resorting to abuse are cost-effective compared to the costs this study has documented related to remediation.

Although empirical evidence on prevention programs' efficacy is limited due to the newness of most programs, the general consensus of researchers on child abuse intervention and prevention is that these programs may very well lower the number of child abuse and neglect cases and thus lower related taxpayer expenditures in other agencies such as corrections or juvenile justice. As Deborah Daro states in her book *Confronting Child Abuse: Research for Effective Program Design* "confronting the child abuse crisis is costly. Ignoring the direct and indirect expenditures associated with attempts to resolve this social problem will not make the task less costly nor will it result in the most efficient practice choices."

In conclusion, while this study does not directly address the question of the effectiveness of remediation programs, experts in this field are confident that these programs do ameliorate the harmful incidences of child abuse and their associated costs to society and the taxpayers of Alabama. We also believe that this study's

estimated annual cost of child abuse, at \$521 million per year, is very conservative. We therefore believe there is strong evidence to support additional spending on remedial and preventative programs as a way of saving taxpayer dollars in the long run.

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